



Eastcombe Primary School



Computing Policy

2016 - 2019

Name of School	Eastcombe Primary School
AUP review Date	1st December 2016
Date of next Review	May 2019
Who reviewed this AUP?	Claire Jones, Adrian Lee

Eastcombe's ICT Policy is a statement of the beliefs, values and goals of our school. Staff work co-operatively in the context of using ICT in the day to day operation of our school.

This policy makes clear statements to ensure provision, continuity and equal opportunities across key stage 2. It is compatible with all existing policies and should be read along with Safeguarding Policy, Computer Usage Policy and Staff Insurance Declarations.

The Role of ICT in the Curriculum

"Key Stage 2 pupils use a wider range of ICT tools and information sources to support their work in other subjects. They develop their research skills and decide what information is appropriate for their work. They begin to question the plausibility and quality of information. They learn how to amend their work and present it in a way that suits its audience" (DofE Sept 2012)

Knowledge and Understanding within Computing:

- Finding out things
- Developing Ideas and Things Happen
- Exchanging and Sharing Ideas
- Reviewing, modifying and evaluating work as it progresses

Using Information and Communications Technology

Computing across the curriculum has the potential to transform and enrich children's learning experiences and environments. It can empower children, develop self-esteem and promote positive attitudes to learning. Additionally, the creative use of Computing has the potential to improve children's thinking skills, providing them with opportunities to become independent, self-motivated and flexible learners.

Children should develop the skills of using computing skills by engaging in meaningful research and purposeful activities set in relevant contexts. They should use technology to handle and communicate information, solve problems, pose questions and take risks. They should process, present and exchange their ideas and translate their thinking into creative outcomes that show an awareness of audience and purpose. They should also use technology to collaborate within and beyond the classroom, to share and exchange their work and to exhibit and display their learning.

Rationale

Why should we teach our children Computing?

- *COMPUTING* can enhance the learning process across all areas of the curriculum.
- *COMPUTING* enables children to undertake activities which would be difficult to pursue in any other way.
- *COMPUTING* takes the laborious routine out of some text and information tasks giving greater scope for children's creativity.
- *COMPUTING* can motivate and enthuse children.
- In the information society in which we live, children need to develop *COMPUTING* skills to access relevant information.
- *COMPUTING* gives children immediate access to richer source materials.
- *COMPUTING* has the flexibility to meet the individual needs and abilities of each child catering for both weak and high achievers.
- *COMPUTING* promotes access for children with learning difficulties.
- *COMPUTING* offers potential for effective group work and collaborative learning.
- *COMPUTING* supports different types of learners - audio, visual and kinaesthetic.
- *COMPUTING* promotes and develops thinking skills.

Aims

Our aims in computing are to:

- To raise levels of pupil competence and confidence in Computing - by developing children's knowledge, understanding and skills in using a range of Computing tools to enhance learning experiences across the curriculum
- To raise levels of teacher competence and confidence in integrating Computing into their planning, teaching and assessment of children's work (Computing as an integral part of the processes and the management of teaching and learning)
- To provide access to electronic sources of information and interactive learning resources
- Instil in children a sense of confidence, achievement and enjoyment.
- To enable children and teachers to have access to immediate and up-to-date sources of information.
- Encourage children to select and use technology appropriate to the task.
- Develop practical skills in the use of technology and the ability to apply these skills to the solving of relevant and worthwhile problems.
- To develop children's independent learning skills using technology across the curriculum
- To develop information handling and research skills.

Strategies for use of ICT

- Computing is not just taught as a distinct subject, but is also a tool to be used as appropriate throughout the curriculum.
- Computing should be integrated into each area of study to support and enrich children's learning.
- All children are given access opportunities through management of Computing resources.
- Computing is offered as an entitlement for all children - it should not be perceived as a punishment or reward.

The "Five Es"

Across the curriculum, at a level appropriate to their ability, children should develop their Computing skills to:

Explore

Children should be enabled to:

- Access and manage data and information;
- Research, select, process and interpret information;
- Investigate, make predictions and solve problems through interaction with digital tools;
- Understand how to keep safe and display acceptable online behaviour.

Express

Children should be enabled to:

- Create, develop, present and publish ideas and information using a range of digital media;
- Create information and multimedia products using a range of assets.

Exchange

Children should be enabled to:

- Communicate using a range of contemporary methods and tools;
- Share, collaborate, exchange and develop ideas digitally.

Evaluate

Children should be enabled to:

- Talk about, review and make improvements to work, reflecting on the process and outcome;
- Consider the sources and resources used

Exhibit

Children should be enabled to:

- Manage and present their stored work;
- Showcase their learning across the curriculum.

Objectives

Early Years Foundation Stage

It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or program a toy. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

Key Stage 1

By the end of key stage 1, pupils should be taught to

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test (debug) simple programs.
- Use logical reasoning to predict and computing the behaviour of simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

By the end of key stage 2, pupils should be taught to

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.
- Understand computer networks including the Internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including Internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Computing Resources

Computing includes the use of equipment that enables users to communicate, collaborate or to manipulate information electronically.

The school has a networked Computing system consisting of PCs, laptops, printers, a scanner/photocopier managed by Computing Co-ordinators and Gloucestershire County Council Hardware Support (GCCHS) or other support services. The photocopier is linked to the network, meaning teachers and pupils can print to the colour photocopier from any PC/Laptop. There is bank of 16 laptops (stored in the locked cabinet in the Learning Den) available to the whole school along with 12 tablets. Each class makes use of the devices on a timetabled basis. The timetable is agreed by all teaching staff at the beginning of each term. Adjustments and ad hoc use are also permitted in consultation with other members of the teaching staff.

Each classroom has an interactive white board or projector. The school has 3 digital cameras and are hoping to build on these. These are stored in the within the classrooms and with the Head teacher and can be borrowed when needed. All teachers have agreed that they will remove their photographs from the camera and return it as soon as possible to leave it free for other teachers to borrow, within its numbered box, along with 4 rechargeable batteries, charger, memory card and USB cable.

The school has a couple of Digiblue ® ™ cameras which are digital video camera. This is stored in the Learning Den and can be borrowed by teachers as and when needed. Teachers have also agreed to remove their videos and return it as soon as possible so that it is available for other teachers. There are also recordable microphones and MP3 Players. These can be borrowed as and when needed with recordings deleted. It is a widely accepted if any items are returned with data on them this can be wiped by the next user.

Other Resources

Other Computing resources used by the school include:

- Classroom Printers
- Photocopiers/Scanners
- CD Players
- Recording devices (Sound and Picture)
- Headphones
- DVD & Video Player
- Handheld Microscopes
- Log-Its
- Visualisers
- Calculators
- Telephone and Fax Machine
- Data Projectors
- Programmable Devices - Roamers / Clown Face/ Traffic lights/Washing Machine
- Scanners
- Audio Visual System

Organisation of Resources

- There is one networked Laptop with full internet connection in each classroom for Teacher use, in delivery of the curriculum.
- All PC's provide over 50 software titles to suit curriculum needs. Teachers select software titles appropriate to children's needs and abilities, taking into account progression
- All classrooms are equipped with connection to the Internet and Server.
- Through the network there are shared printing facilities. Colour printer is located in the Teacher Resource Room. Teachers also have the option of printing to the colour photocopier from their classrooms along with using their classroom inkjet printer, if available.
- Additional PC's are in Squirrel Class.
- It has been agreed by all staff that school laptops can be taken home for planning and preparation of resources and planning upon signing the School Computer Insurance Declaration (Appendix 1)
- Teachers may connect laptops to network points in order to carry out personal research, planning etc.
- Certain resources are centrally stored/may be obtained from School Business Manager. These include e.g. digital cameras, OHP etc.
- As children progress from EYFS to KS1 and on to KS2 they are given opportunities to use a variety of these Computing resources. The Computing Subject co-ordinator/team and head are keen to develop resources and plan for it annually in the Computing Plan (See Appendix 2).

Access

Pupil Access

- All children have a unique username. They know the importance of keeping their username and password private.
- Through computers all children have access to software titles appropriate to their curriculum needs and learning needs.

- Through computers all children have access to the Internet.

Through the network, children in each classroom have access to both colour and black and white printing facilities.

Pupil Assistance and Supervision

- Children use technology resources under the guidance of the Classroom Teacher, Teaching Assistants or Lunchtime Supervisors.
- The use of the Internet should always be a supervised activity.
- Access to the Internet is managed/screened through the South West Grid for Learning (SWGfL).

Teacher Access

- All teachers have access to the network with a unique username and password.
- All teachers are aware of the importance of keeping their username and password confidential.
- Through laptops and Squirrel class PCs all teachers have access to software titles appropriate to their curriculum planning needs and classroom practice.
- Through laptops and Squirrel class computers all teachers have access to the Internet.
- All teachers have access to laptops available for use on the network and for home use.
- All teachers have access to Computing equipment such as the data projector, interactive whiteboard, digital camera, etc. to facilitate a variety of teaching approaches.

Classroom Management of Computing Resources

Where appropriate, children will have opportunities to use Computing resources to carry out:

- Individual work
- Paired initiatives
- Group activities

Children will generally work individually at the computer.

- It is important that all children are engaged in the task and can see the screen comfortably therefore no more than three children will work together at one computer.

Whole class activities

- Children may share in a computer-led activity where an interactive whiteboard or a data projector is used or where there is access to a suite of laptops. All children will have planned opportunities to use Computing resources.
- A variety of opportunities will be planned across the curriculum to give children opportunities to develop their skills.

The computer will not be used as a reward for the child who has completed his/her work first.

Planning, Monitoring and Evaluating

Planning at Whole School Level

The Head and Computing Subject Co-ordinating lead consult on how Computing is incorporated into the School Development Plan. Annually the Computing Co-ordinator/Team will draw up an action plan and review as appropriate, alongside the Subject Audit.

Planning at Year-Group and Class Levels

As the school develops its resources and expertise to deliver the computing curriculum, modules will be planned in line with the 2014 national curriculum and will allow for clear progression. Modules will be

designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans with objectives set out in the national curriculum and use the same format for their weekly planning sheet. We recognise that all classes have children with widely differing computing abilities.

This is especially true when some children have access to equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by

- Setting common tasks which are open-ended and can have a variety of responses.
- Setting tasks of increasing difficulty (not all children complete all tasks).
- Grouping children by ability in the room and setting different tasks for each ability group.
- Providing resources of different complexity that are matched to the ability of the child.
- Using classroom assistants to support the work of individual children or groups of children.

Assessment, Recording and Reporting

Children's Computing skills are assessed and recorded by the classroom teacher using the following approaches:

Formative Assessment Methods - observing and questioning during classroom activities.

The child's Computing achievements are recorded by the teacher completing a check list of skills, knowledge and understanding.

Summative Assessment Methods - collecting samples of children's work using technology.

Teachers report to the next teacher by discussing progress, passing on samples of work and information regarding skills and levels.

Teachers report to parents during parents evening and also on the child's report at the end of the year where each child's competence and skills forms an important part of the written report.

- As work is often cross-curricular this may be stuck in the appropriate subjects' book and marked accordingly. However specific Computing units should be stored in a child's Computing e-portfolio. A record of children's accomplishments and work completed is stored on the central curriculum server. Each child has their own folder of work, for which they are responsible.
- At the completion of a class piece of work three pieces of work (top, middle and bottom) are placed in the a ICT Pupil Evidence Folder for the year group
- Work to be levelled at the end of the year and reported to Subject Co-ordinator
- Work assessed using appropriate Computing Milestones (or other appropriate assessment system used in school).

Inclusion

It is important to recognise the potential of technology to help address children's individual learning needs. Computing is used to enhance the learning experiences of children with additional needs within the school.

- Where appropriate specialist hardware equipment, such as a touch screen, big mice, big keyboard etc. will be made available to meet a child's needs.
- Where appropriate, specific software e.g. Wordshark™ are used to assist learning.
- Where appropriate, teacher developed resources such as Clicker 5 word banks are used to assist learning.

Teachers are familiar with the variety of graded levels within frequently used software to provide differentiation and cater for children with additional needs within their classrooms. Where children are working in intervention groups they will have access to appropriate technology as required.

Equity of Access

All children will have equity of access to the use of Computing across the curriculum. The school will guard against gender stereotyping with encouragement given to both girls and boys to engage in Computing related activities. Children of all ages, ability levels, and backgrounds will have equal access to Computing resources.

It is important that children who do not have Computing resources at home should not be disadvantaged. An audit of children's resources at home is carried out at the beginning of each school year. Each class teacher uses this information sensitively to plan for children who have no or limited access at home. This information is also used to give children with no or limited Computing facilities at home first chance to participate in an after-school Computing club if this is required. The possibility of a Homework club also offers the opportunity for those with limited or no limited resources at home.

Health and Safety

In all classrooms consideration is given to health and safety in the location and positioning of equipment. The following issues are addressed;

Position and Posture of the child

- Children should be seated correctly at the computer:
- When using the computer the child should be able to sit upright on a chair which gives some back support, having their arms roughly horizontal when using a keyboard.
- The child's body should face forwards, not twisted sideways.
- The child's feet should reach the floor. A footstool may be used where necessary.
- Ideally the chair height will be adjustable to suit all the people who will use it.
- Children sharing a computer should be encouraged to make sure that everyone in the group can see without straining.
- Children should be looking down at the screen with the top of the screen roughly at their eye level.
- Children should be shown how to hold the mouse lightly in the widest part of their hand so that a very small movement is needed to click a button.

Furniture

- The computer table/bench should be of a height appropriate to the size of the child.
- The monitor should be kept well back from the front edge of the table/bench.
- There should be space on the computer table/bench for the keyboard in front of the monitor.
- There should be enough space on the computer table for a mouse mat to be used.
- Computers should be positioned if possible to avoid glare from light or windows.

Reducing Risks

- Due care will be taken not to overload extension cables or double socket adapters where it is necessary to use such equipment.
- Leads should not trail on the floor.
- Damaged plugs or leads will be replaced.
- Ventilation grills should not be blocked as overheating may occur.

- There is a slight risk of triggering epileptic seizures from excessive screen flicker. As monitors can vary in the steadiness of screen image due care will be taken to use a monitor with minimum screen flicker where an individual child may be at risk.
- All issues are fed back to the school business manager, to arrange for repair or replacement.

Computing in the Home and in the Community

Children will be encouraged to make appropriate use, and be given opportunities to make use of Computing resources to:

- Carry out research to support classroom work, projects etc.
- To complete work begun in school
- To carry out or present a homework task
- Work carried out on home computers should be valued. It is important to ensure that a consistent approach to children's use of home computers is taken in each class as a child progresses through the school.
- Children and their responsible adult(s) will adhere to the signed age or position related Acceptable Use Policy (Appendix 3)

Online Safety

All staff take the online safety of children very seriously. Cyberspace is an ever changing place. Risks are managed through:

- Staff Training
- Pupil Annual Safer Internet Day (February each year)
- E-safety training /awareness for parents and carers annually
- Hector the Protector -The Hector's World Safety Button™ is a child-activated safety tool which children can use if something on-screen upsets or worries them. The tool converts the screen to an under-water setting and informs the children they have done the right thing and that they should now seek adult help.
- Safeguarding Policy
- Anti-Bullying Policy
- Use of Internet Screening/Filtering Facilities.

Staff Training

Staff development in Computing and the use of technology is on-going within the school. It is our aim to raise the level of teacher competence and confidence in Computing by:

- Giving teachers opportunities to attend INSET - to develop their knowledge and use of technology and computing across the curriculum.
- The Computing co-ordinator attends leadership courses and disseminates to the teaching staff via staff meetings.
- Providing in-school support for teachers requiring assistance in developing aspects of Computing skills knowledge and understanding.
- Teaching staff complete an audit of skills and they have the opportunity to highlight areas they would like to become more competent in. The Computing co-ordinator/ Subject team, addresses these areas where possible and seeks help from outside school where necessary.

The role of the Subject Leader/Computing Co-Ordinator

- To provide leadership and direction
- To ensure that the use of Computing is managed and organised to meet school aims and objectives
- To play a key role in school policy development in relation to Computing and teaching and learning
- To liaise with the Head to set priorities and targets to improve Computing provision
- To support, guide and motivate colleagues - which may require the provision of training of staff
- To contribute to the monitoring and evaluation process
- To keep up to date with recent developments in Computing and advise colleagues appropriately
- To ensure continuing personal professional development
- To develop and devise a rolling Computing development plan for resourcing of hardware and software.

The Responsibility of the Classroom Teacher

It is the responsibility of the classroom teacher to:

- Integrate Computing into curriculum planning, classroom teaching and the assessment of children's work.
- Ensure that any Computing resource/software used in the classroom is appropriate to curriculum needs and children's learning needs.
- Ensure health and safety practices are carried out.
- Discuss and devise with the children rules for using the computer safely.
- Implement and monitor the Acceptable Use Policy.

APPENDIX 1

School Computer Insurance Declarations

APPENDIX 2

ICT Development Plan

APPENDIX 3

Acceptable Usage Declarations

- a. KS1 AUP
- b. KS2 AUP
- c. *Staff, Governors, and Volunteers AUP*
- d. Parent AUP